What is claimed:

1. A restraint system equipped with a rotatable shoulder holder to increase survival chance in a real-world accident of a vehicle, train or an aeroplane or in an inflight turbulence, comprising

a seat belt **(1d, 1e)**, consisting of several belt portions, at least one latch plate, a lap buckle assembly **(9.1)**, a belt pretensioner and belt fittings;

the rotatable shoulder holder **(10d)**, having a pair of shoulder caps **(10.2d)**, which, when in a resting position, are located in a seat backrest **(3.2d, 3.2e)**; and

a rotatable device **(28)**, having a pair of rotatable levers **(28.5)**, retained by stop pieces **(28.9)** in the resting position, where the rotatable levers **(28.5)**, having first ends, connected to the pair of shoulder caps **(10.2d)**, and second ends, connected to each other by a shaft **(28.7)**, are rotatably attached to a pair of casings **(29)**, each of which, defined by an L-shaped plate **(28.4)** and two outer tubes **(28.1, 28.2)**, connected to each other by a coupling wall **(28.3)**, is height-adjustable, latchable and guided by inner tubes **(71, 72)** of a seat backrest frame **(3.4d, 3.4e)**;

wherein

a passenger is restrained by the seat belt **(1d, 1e)** and his shoulders are restrained by the shoulder caps **(10.2d)**, moved by the rotatable device, when operated from the resting position to an operative position;

where at least one shoulder belt portion of the seat belt **(1d, 1e)** is extended over the respective shoulder cap and a U-shaped plate **(10.15)** thereof, when the rotatable levers **(28.5)** are rotated, causing release cams **(28.6)** of the rotatable levers to force a rotation of lock pawls **(28.8)**, pre-loaded by first springs **(28.10)**, thereby permitting locking pins **(28.12)**, pre-loaded by second springs **(28.13)** and loosely guided in guide tubes **(28.11)**, to move into holes **(28.14)** of the casings **(29)** and block the rotatable levers in both directions.

2. A restraint system equipped with a rotatable shoulder holder to increase survival chance in a real-world accident of a vehicle, train or an aeroplane or in an inflight turbulence, comprising

a seat belt **(1, 1e)**, consisting of several belt portions, at least one latch plate, a lap buckle assembly **(9.1)**, a belt pretensioner and belt fittings;

the rotatable shoulder holder **(10e)**, having a pair of shoulder caps **(10.2e)**, which, when in a resting position, are located on an upper portion of a seat backrest **(3.2d, 3.2e)**; and

a motor-driven rotatable device **(28a)**, having a drive apparatus **(80)** and a pair of rotatable levers **(28.5a)**, having first ends, connected to the pair of shoulder caps **(10.2e)**, and second ends, connected to each other by a shaft **(28.7)**, are rotatably attached to a pair of casings **(29a)**, each of which, defined by an L-shaped, partly laterally closed and partly laterally open plate **(28.4a)** and two outer tubes **(41e, 41f)**, connected to each other by a coupling wall **(28.3)**, is height adjustable, latchable and guided by inner tubes **(71, 72)** of a seat backrest frame **(3.4d, 3.4e)**; and

vibration-dampening energy absorbers **(40e, 40f)**, having a number of clamping members **(42e, 42f)** provided with sites of predetermined fracture (s), biased, arranged along the outer tubes **(41e, 41f)** and tautly, less tautly or loosely connected to the pair of rotatable levers via stop pieces **(28.9a)** by corresponding wires **(47e, 47f)**;

wherein

a passenger is restrained by the seat belt **(1, 1e)** and his shoulders are restrained by the shoulder caps **(10.2e)**, moved by the rotatable device, driven by the drive apparatus **(80)**, from the resting position to an operative position;

where at least one shoulder belt portion of the seat belt **(1, 1e)** is extended over the respective shoulder cap and a U-shaped plate **(10.15)** thereof, when the rotatable levers **(28.5a)** are rotated by the drive apparatus **(80)**, causing release cams **(28.6a)** of the rotatable levers to force a rotation of lock pawls **(28.8a)**, pre-loaded by first springs **(28.10a)**, thereby permitting locking pins **(28.12)**, pre-loaded by second springs **(28.13)** and loosely guided in guide tubes **(28.11)**, to move into holes **(28.14)** of the casings **(29a)** and block the rotatable levers in one direction;

where in the real-world accident or in the inflight turbulence a forward motion of the torso and head rotates the rotatable levers in another direction through the openings of the L-shaped, partly laterally closed and partly laterally plates **(28.4a)**, thus moving the clamping members **(42e, 42f)** along the corresponding tubes **(41e, 41f)** resulting in a work of deformation and friction, during which vibrations are dampened and a stored energy is released by fracture of the sites of predetermined fracture of the clamping members in excess of respective threshold values.

3. A restraint system equipped with an insertable shoulder holder to increase survival chance in a real-world accident of a vehicle, train or an aeroplane or in an inflight turbulence, comprising

a seat belt **(1, 1b, 1e)**, consisting of several belt portions, at least one latch plate, a lap buckle assembly **(9.1)**, a belt pretensioner and belt fittings;

the insertable shoulder holder **(10, 10b, 10f)**, having a pair of shoulder caps **(10.2, 10.2b, 10.2f)** with first open apertures to receive the belt portions;

a pair of shoulder latch plates **(10.1b)**, connected to the shoulder caps **(10.2, 10.2b, 10.2f)** and having second open apertures, in which the belt portions are loosely secured by quick-release pins **(10.10)**, when the insertable shoulder holder and the seat belt are fitted together, and released by withdrawal thereof for removal, when the insertable shoulder holder is withdrawn; and

at least one pair of supplemental buckle assemblies **(18a / 19a to 18n / 19n)**, attached in a seat backrest **(3.2a, 3.2c)**;

wherein

a passenger is restrained by the seat belt **(1, 1b, 1e)** and his shoulders are restrained by the shoulder caps **(10.2, 10.2b, 10.2f)** upon plug-in connection of the shoulder latch plates **(10.1b)** with the supplemental buckle assemblies **(18a / 19a to 18n / 19n)**; and

at least one shoulder belt portion of the seat belt **(1, 1b, 1e)** is extended over the corresponding, first open aperture and loosely secured in the corresponding, second open aperture by the quick-release pin.

4. A restraint system equipped with an insertable, one-piece shoulder- and neck holder to increase survival chance in a real-world accident of a vehicle, train or an aeroplane or in an inflight turbulence, comprising

a seat belt **(1a, 1c, 1e)**, consisting of several belt portions, at least one latch plate, a lap buckle assembly **(9.1)**, a belt pretensioner and belt fittings;

the insertable, one-piece shoulder- and neck holder **(10a, 10c)**, defined by a neck cap **(10.4a, 10.4c)** and a shoulder cap **(10.2a, 10.2c)** with first open apertures to receive the belt portions;

a pair of shoulder latch plates **(10.1b)**, connected to the shoulder cap **(10.2a, 10.2c)** and having second open apertures, in which the belt portions are loosely secured by quick-release pins **(10.10)**, when the insertable, one-piece shoulder- and neck holder and the

seat belt are fitted together, and released by withdrawal thereof for removal, when the insertable, one-piece shoulder- and neck holder is withdrawn; and

at least one pair of supplemental buckle assemblies **(18a / 19a to 18n / 19n)**, attached in a seat backrest **(3.2a, 3.2c)**;

wherein

a passenger is restrained by the seat belt **(1a, 1c, 1e)** and his shoulders and his neck are restrained by the shoulder cap **(10.2a, 10.2c)** and neck cap **(10.4a, 10.4c)** upon plug-in connection of the shoulder latch plates **(10.1b)** with the supplemental buckle assemblies **(18a / 19a to 18n / 19n)**; and

at least one shoulder belt portion of the seat belt **(1, 1b, 1e)** is extended over the corresponding, first open aperture and loosely secured in the corresponding, second open aperture by the quick-release pin.

5. The restraint system according to claim **2**, wherein the shoulder cap **(10.2e)**, recessed about a supporting tube **(3.61)** of a head rest **(3.6)**, is reinforced by a reinforcing plate **(10.13)**.

6. The restraint system according to claim **2**, wherein in the operative position the shoulders and a neck are restrained by a rotatable shoulder- and neck holder **(10e)**, defined by the rotatable shoulder holder **(10e)** and a neck holder, having a pair of neck caps **(10.4, 10.4b)**, attached to the pair of shoulder caps **(10.2e)**.

7. The restraint system according to claim **6** wherein the drive apparatus **(80)** is activated by a separately operated switch.

8. The restraint system according to claim **6**, wherein the drive apparatus is activated when a speed, monitored by a controller, exceeds a threshold speed.

9. The restraint system according to claim **6**, wherein the drive apparatus is activated by an accelerator pedal.

10. The restraint system according to claim **6**, wherein the drive apparatus is activated when a sensor senses an acceleration, which exceeds a threshold acceleration.

11. The restraint system according to claim **6**, wherein upon a pressure on a release button **(84o, 87a to 87c)**, attached to a seat, the drive apparatus **(80)** moves the rotatable

shoulder- and neck holder back from the operative position to the resting position while the passenger remains belted..

12. The restraint system according to claim **6**, wherein the lap buckle assembly **(9.1)** has a master release button **(84)**, which is connected to a switch of the drive apparatus **(80)**, where the master release button **(84)**, when depressed, moves the rotatable shoulder- and neck holder back from the operative position to the resting position and releases the seat belt from restraining the passenger.

13. The restraint system equipped with the rotatable shoulder- and neck holder according to claim **6**, further comprising at least one supplemental vibration-dampening energy absorber **(30, 40, 50)**, which consists of

a retaining element **(31, 41, 51)**, serving as a member of a seat frame, generally representing a seat-cushion- or seat backrest frame, and

at least one clamping element **(32, 32.1 to 32.n, 42, 42.1 to 42.n, 52, 52.1 to 52.n)**, biased, arranged along the retaining element, provided with sites of predetermined fracture (s), which have at least one threshold value, and tautly, less tautly or loosely connected to the clamping members **(42e, 42f)** by a control-wire **(37, 47, 57)**,

14. The restraint system according to claim **3**, wherein in the operative position the shoulders and a neck are restrained by an insertable shoulder- and neck holder **(10, 10b, 10f)**, defined by the insertable shoulder holder **(10, 10b, 10f)** and a neck holder, having a pair of neck caps **(10.4, 10.4b)**, insertably attached to the pair of shoulder caps **(10.2, 10.2b, 10.2f)**, where the neck caps can be detached therefrom and removed.

15. The restraint system according to claim **14**, wherein the insertable shoulder- and neck holder **(10, 10b, 10f)** is provided with at least one cap energy absorber **(10.3, 10.3a, 10.5, 10.5a, 10.5c)**.

16. The restraint system according to claim **15**, wherein the cap energy absorber is fastened to the cap by an adhesive fastener and detachable therefrom by opening the fastener.

17. The restraint system according to claim **3**, wherein the shoulder cap is shoulder-shaped.

18. The restraint system according to claim **15**, wherein the cap energy absorber is shoulder-shaped.

19. The restraint system according to claim **15**, wherein the neck cap is neck-shaped.

20. The restraint system according to claim **15**, wherein the cap energy absorber is neck-shaped.

21. The restraint system according to claim **20**, wherein the cap energy absorber **(10.5a)**, arranged in the neck cap **(10.4a)**, serves as a neck collar having a wide portion for a chin.

22. The restraint system according to claim **3**, wherein the latch plate of the insertable shoulder holder is provided with a latch energy absorber **(10.9)**.

23. The restraint system according to claim **14**, wherein the shoulder- and neck cap, provided with a height-flange **(10.12)**, is adjustable in height by rotating a height-bolt **(10.7)** in a threaded hole of the height-flange **(10.12)**.

24. The restraint system according to claim **14**, wherein the shoulder- and neck cap, provided with a width-flange **(10.12f)**, is adjustable in width by rotating a width-bolt **(10.6a)** in a threaded hole of the width-flange **(10.12f)**.

25. The restraint system according to claim **14**, further comprising at least one vibration-dampening energy absorber **(30, 40, 50)**, which consists of

a retaining element **(31, 41, 51)**, serving as a member of a seat frame, generally representing a seat-cushion- or seat backrest frame, and

at least one clamping element **(32, 32.1 to 32.n, 42, 42.1 to 42.n, 52, 52.1 to 52.n)**, tautly, less tautly or loosely connected to the supplemental buckle assembly of the seat backrest by a control-wire **(37, 47, 57)**, biased, arranged along the retaining element and provided with sites of predetermined fracture (s), which have at least one threshold value.

26. The restraint system according to claim **25**, wherein the retaining element is integrated into the seat frame.

27. The restraint system according to claim **25**, wherein the clamping element has open and tube-shaped profile.

28. The restraint system according to claim **25**, wherein the retaining element is tube-shaped.

29. The restraint system according to claim **25**, wherein a longitudinal rib **(41.1, 51.1)** is arranged to the retaining element.

30. The restraint system according to claim **29**, wherein both edges of the clamping element are loosely guided by the longitudinal rib in longitudinal direction.

31. The restraint system according to claim **29**, wherein a stop element **(41.3)** is arranged to the longitudinal rib.

32. The restraint system according to claim **29**, wherein the thickness of the longitudinal rib increases in longitudinal direction, in which the clamping element moves.

33. The restraint system according to claim **25**, wherein the clamping element is cone-shaped.

34. The restraint system according to claim **25**, wherein the retaining element **(51)** is cone-shaped.

35. The restraint system according to claim **25**, wherein at least one stop pin **(46, 46.1 to 46.n)** is laterally arranged to the retaining element, where the stop pin blocks a movement of the clamping element, thus resulting in fracture of the sites of predetermined fracture.

36. The restraint system according to claim **25**, wherein contact surfaces of the retaining element have arbitrary friction coefficients (μ_0).

37. The restraint system according to claim **25**, wherein contact surfaces of the retaining element are provided with a soundproofing material **(83)**.

38. The restraint system according to claim **25**, wherein contact surfaces of the clamping element have arbitrary friction coefficients (μ_0).

39. The restraint system according to claim **25**, wherein contact surfaces of the clamping element are provided with a soundproofing material **(83)**.

40. The restraint system according to claim **30**, wherein end portions of a complementary wires **(37a1)**, connected to the control-wire **(37)**, are inserted into both cylinder-shaped

edges **(37c1)** of the clamping elements **(32)** and secured by clamping the cylinder-shaped edges **(37c1)**.

41. The restraint system according to claim **25**, wherein the clamping element is provided with a pair of ribs, whereto several pairs of adjusting holes (L_1 to L_e) are arranged.

42. The restraint system according to claim **25**, wherein a set of vibration-dampening energy absorbers comprises the retaining element, at least one stop pin, at least one stop element, one control-clamping element, connected to the control-wire, and complementary clamping elements with sites of predetermined fracture, where all clamping elements, arranged along the retaining element, are tautly, less tautly or loosely connected to each other by complementary wires.

43. The restraint system according to claim **42**, wherein an energy-absorbing, vibration-dampening device comprises a couple member **(1.2a, 1.2b)** and the sets of vibration-dampening energy absorbers, the control-wires of which are tautly, less tautly or loosely connected to the couple member.

44. The restraint system according to claim **43**, wherein a guide piece **(4.7a)**, fastened to the seat frame, has

a pair of engaging parts **(4.10a, 4.10b)**, form-locking connected to the corresponding apertures of a housing **(4.8a, 4.8b)** of the supplemental buckle assembly; and

a hole **(4.5a, 4.5b)** to loosely guide a tie band **(1.1a, 1.1b)**, having a first and second end connected to the supplemental buckle assembly and the couple member.

45. The restraint system according to claim **43**, wherein a housing **(4.8c)**, movable along a pair of tubes **(27.3)** of the seat backrest frame and latchable thereon, has

an aperture to receive an engaging part **(4.10c)** of the supplemental buckle assembly, through a hole **(2.3)** of which a wire is protruded and both end portions of the wire, serving as tie bands, are secured by a mutual bracket **(1.7)**; and

two holes **(4.5c)** to loosely guide the tie bands, connected to the couple members.

46. The restraint system according to claim **3**, wherein the lap buckle assembly has a master release button **(84)**,

provided with release wires connecting to electrical motors **(4.2b)** of release buttons of the pairs of supplemental buckle assemblies of the seat backrest, to one of which the shoulder latch plates of the insertable shoulder holder are plug-in connected;

where the master release button **(84)**, when depressed, disengages all the latch plates of the insertable shoulder holder and the seat belt.

47. The restraint system according to claim **14**, wherein the lap buckle assembly has a master release button **(84)**,

provided with release cables **(4.2)** connecting to release buttons of the pairs of supplemental buckle assemblies of the seat backrest, to one of which the shoulder latch plates of the insertable shoulder- and neck holder are plug-in connected;

where the master release button **(84)**, when depressed, disengages all the latch plates of the insertable shoulder- and neck holder and the seat belt.

48. The restraint system according to claim **46**, wherein the insertable shoulder holder is attached to a seat for the purpose of storage and detachable therefrom by depressing a release button **(87a to 87c)** of the seat.

49. The restraint system according to claim **47**, wherein the insertable shoulder- and neck holder is attached to a seat for the purpose of storage and detachable therefrom by depressing a release button of the seat.

50. An energy-absorbing, vibration-dampening safety seat according to claim **49**, wherein sets of vibration-dampening energy absorbers, the seat belt, the insertable shoulder- and neck holder and the seat are integrated into a safety adult-seat;

which is transformed into a safety child-seat when a detachable front portion of the seat cushion **(3.1a)** serves as the insertable shoulder- and neck holder **(10a)**, the shoulder latch plates of which are plug-in connected to one of the pairs of supplemental buckle assemblies **(18a / 19a to 18n / 19n)** of the seat backrest, to restrain shoulders and a neck of a belted child and the space thereof is exploited to accommodate legs of the child sitting on the rear portion thereof;

where the safety child-seat can be converted back into the safety adult-seat.

51. An energy-absorbing, vibration-dampening safety baby-cot according to claim **50**, wherein

the safety child-seat is transformed into the energy-absorbing, vibration-dampening safety baby-cot when the seat backrest is flipped downwards;

where the safety baby-cot can directly be converted back either into the safety child-seat or into the safety adult-seat.

52. The restraint system according to claim **47**, wherein

a common release button **(84o)**, located on the seat cushion, is provided with release cables **(4.2)** connecting to release buttons of the pairs of supplemental buckle assemblies of the seat backrest, to one of which the shoulder latch plates of the insertable shoulder- and neck holder are plug-in connected;

where the common release button **(84o)**, when depressed, disengages the shoulder latch plates of the shoulder- and neck holder while the passenger remains belted.